

**BEFORE
THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA**

DOCKET NO. 2020-63-E

IN RE: Bridgestone Americas Tire
Operations, LLC,

Petitioner,

v.

Dominion Energy South Carolina,
Inc.

Respondent.

**DIRECT TESTIMONY
OF COURTNEY CANNON**

Q. PLEASE STATE YOUR NAME, PRESENT POSITION, AND BUSINESS ADDRESS.

A. Courtney Cannon, Senior Manager, Project Management Office, Bridgestone Americas Tire Operations, LLC , Process Systems Development, 200 4th Ave South, Nashville, TN 37201.

Q. WHAT ARE YOUR DUTIES IN YOUR CURRENT POSITION?

A. I am responsible for project governance and a team of engineering project/program managers who oversee key capital projects for Bridgestone Americas Manufacturing Group.

Q. WHAT IS YOUR EDUCATION AND PROFESSIONAL BACKGROUND?

A. I hold a Bachelor of Science in Mechanical Engineering from The Georgia Institute of Technology (Georgia Tech) (Atlanta, GA - 2008) and Master of Business Administration with a certificate in Engineering Management from Drexel University (Philadelphia, PA- 2011). I have

1 worked in manufacturing for 12 years. The first seven years of my career were spent at an
2 aluminum rolling mill where I gained engineering experience in utilities, maintenance, high-speed
3 slitting, coating and process engineering. I joined Bridgestone Americas Tire Operations, LLC
4 (“BATO”), (a wholly owned subsidiary of Bridgestone Americas Inc.) in 2015 as the corporate
5 Energy Manager responsible for the energy efficiency of our Americas Tire Operations including,
6 but not limited to, the utilization of electricity and fuel/natural gas to manufacture our products.
7

8 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

9 **A.** The purpose of my testimony is to support BATO’S application for an order compelling
10 Dominion Energy South Carolina (“DESC”) to allow the operation of a 1.98 MW AC solar array
11 as authorized by state law. In particular, I will testify to BATO’s efforts to protect itself from
12 rising energy costs and BATO’s commitment to renewable energy.
13

14 **Q. PLEASE DESCRIBE BATO’S OPERATIONS IN AIKEN COUNTY, SOUTH**
15 **CAROLINA.**

16 **A.** BATO is a limited liability company organized under the laws of the State of Delaware
17 and is authorized to conduct business in the state of South Carolina. BATO employs
18 approximately 10,600 employees throughout the United States and operates seven U.S. tire
19 manufacturing facilities, including two facilities in Aiken County, South Carolina. BATO operates
20 a passenger and light truck tire manufacturing plant in Graniteville, South Carolina where it
21 employs approximately 1,730 employees and contractors at a 2.78 million square foot (nearly 64
22 acres under roof) facility located on a 585-acre site. BATO is constructing an expansion at its

1 Graniteville site which will increase the size of the Graniteville manufacturing plant by 366,000
2 square feet.

3 BATO also operates an off-road tire plant in Trenton, South Carolina where it employs
4 approximately 475 employees in a 1.5 million square foot (over 34 acres under roof) facility
5 located on a 545-acre site. Groundbreaking for the initial \$800M+ capital investment began in
6 2011 and capacity investments are currently underway within the existing footprint. This facility
7 carries the distinction of being LEED certified by the US Green Building Council among other
8 environmental accolades.

9 BATO is a valued employer and manufacturing citizen of South Carolina.
10

11 **Q. PLEASE TELL US A LITTLE MORE ABOUT THE PASSENGER AND LIGHT**
12 **TRUCK TIRE PLANT.**

13 **A.** The Passenger and Light Tire Plant in Aiken County was constructed in 1997. In addition
14 to an annual investment of BATO capital for continuous improvement (safety, environmental,
15 quality, cost and delivery) and expanded manufacturing capabilities, the Plant has seen two major
16 expansions. The first, constructed between 2011 and 2015 resulted in a 50% increase in production
17 and the second is under construction now which will further increase production and enhance
18 supply chain management. BATO values the safety of its employees. The Plant has received the
19 South Carolina Manufacturers Alliance Safety Award, the U.S. Tire Manufacturers Association
20 Award and received the Palmetto Star (VPP) recertification. The Plant has been recognized by
21 its customers for its high-quality tires, receiving both the Fiat Chrysler Automotive Outstanding
22 Quality Award and the GM Supplier Quality Excellence Award. Consistent with BATO's
23 commitment to protect the environment, the Plant sends zero manufacturing or operations waste

1 to the landfill and is a Certified Habitat by the National Wildlife Habitat Council. Bridgestone
2 offers a variety of programs through our onsite learning center for free community outreach and
3 training as part of BEEP (Bridgestone Environmental Education Program) which has received state
4 and national recognition. In addition, the Plant has been honored by gaining membership to the
5 South Carolina Environmental Excellence Program in July 2018 which required an extensive
6 evaluation of the many deliberate efforts by the Plant to promote environmental protection. The
7 Plant has recently partnered with Clemson University, the South Carolina Department of Natural
8 Resources, the South Carolina Department of Health and Environmental Control and the US
9 Department of Agriculture to utilize its solar array as a pilot for the development of a sustainable
10 ground covering utilizing native South Carolina plants to encourage native, low maintenance
11 vegetation in and around solar arrays in the state.

12 The Plant is an active member of its community and promotes the United Way, American
13 Red Cross, American Heart Association, Aiken County Public Schools and the Golden Harvest
14 Food Bank.

15
16 **Q. PLEASE DESCRIBE BATO'S EFFORTS TO PROTECT ITSELF FROM RISING**
17 **ENERGY COSTS.**

18 **A.** In general, the largest lever that we can control in manufacturing to protect ourselves from
19 rising energy costs is to improve the energy efficiency of our manufacturing process. Equipment
20 inherently becomes less efficient over time, so energy efficiency improvement is perpetual in
21 nature. Key tenets of energy efficiency in manufacturing at Bridgestone include investment,
22 continuous improvement, cultural awareness, and monitoring.

1 Another opportunity for cost control is demand management. This can be accomplished a
2 variety of ways, but the two most commonly used methods are staggered utilization and on-site
3 generation. The nature of our manufacturing process makes staggered utilization (essentially
4 limiting the amount of energy that is required in a window of time) difficult to consistently
5 implement and on-site generation typically requires significant capital investment and a
6 disproportionally high cost of operation (including fuel and maintenance) versus the unit price of
7 buying electricity.

8 Other levers focused on cost savings include contract negotiations and hedging strategies
9 that are driven by our Procurement group.
10

11 **PLEASE DESCRIBE BATO'S CORPORATE POLICY WITH RESPECT TO**
12 **RENEWABLE ENERGY.**

13 **A.** Bridgestone maintains publicly stated sustainability objectives for our global operations.
14 Tire Manufacturing in the Americas carries a significant obligation to achieving those targets.
15 CO2 emissions, much like energy efficiency, have historically been normalized, per manufactured
16 unit (lb-CO2 per tire for example). The global goals have also set an aggressive absolute target
17 for a 50% overall reduction of CO2 by 2050. In the Americas, we have outlined a strategy as part
18 of our Corporate Social Responsibility policy, "Our Way to Serve", to achieve this absolute target
19 which includes the utilization of renewable energy.

20 Our focus in manufacturing is on Scope 1 (direct emissions – an example would be
21 emissions from natural gas usage in our boilers) and Scope 2 (indirect emissions – emissions
22 generated by our electricity providers while generating the electricity that we consume which is
23 calculated by multiplying the amount of electricity we use by the CO2 intensity of how it was

1 generated). In addition to reducing the CO2 intensity of our Scope 1 emissions by utilizing cleaner
2 fuel sources, we are continuously investing and improving our process to become more energy
3 efficient thus using less energy and reducing CO2. A lever that we do not control that has a
4 significant impact on the CO2 emissions we account for is the CO2 intensity of the generation of
5 electricity by our electricity providers. We refer to both the US EPA e-grid and the supplier
6 reported emission factors (lb-CO2/kWh) when calculating our emissions.

7 The Bridgestone 2050 absolute targets for CO2 reduction require the utilization of
8 renewable energy, as well as continued improvements in both the energy efficiency of our
9 manufacturing process and the improvement in the emission factors of our energy providers. In
10 the Americas, we have been much less reliant on renewables versus our partners around the globe
11 and have prioritized this investment to gain experience and best determine the path forward for
12 our sustainability strategy.

13
14 **Q. PLEASE DESCRIBE BATO'S EFFORTS TO INVESTIGATE INSTALLATION**
15 **OF SOLAR ENERGY AT ITS PASSERNGER TIRE PLANT IN GRANITEVILLE, IN**
16 **AIKEN COUNTY SOUTH CAROLINA.**

17 **A.** To protect itself from rising utility costs and in furtherance of its commitment to renewable
18 energy, BATO investigated installing a Solar Array at its Graniteville plant in 2017. BATO
19 studied the possibility of constructing a solar array to be interconnected to and to be operated in
20 parallel with SCE&G's (now DESC's) distribution and transmission system, but chose not to build
21 the solar array after it missed the opportunity to participate in SCE&G's Bill Credit Agreement
22 program. Remaining committed to renewable energy, BATO decided to pursue the construction
23 of a 1.98 MW AC Solar Array which did not interconnect to or operate in parallel with DESC's

1 system. The electricity generated by the Solar Array would not be net-metered or sold to DESC
2 but consumed exclusively by BATO's operations at its Graniteville plant. In so doing, BATO
3 retained the services of a consultant and engineering team to design the plant in accordance with
4 DESC's technical specifications as required by the parties' contract for electric service.

5
6 **Q. PLEASE EXPLAIN HOW THE SOLAR ARRAY CONSTRUCTED AT BATO'S**
7 **GRANITEVILLE PLANT ENABLES BATO TO ADDRESS ITS RISING ENERGY**
8 **COSTS AND MEET ITS RENEWABLE GOALS.**

9 **A.** In October of 2018, BATO constructed a Solar Array at its Graniteville plant at a cost of
10 approximately \$2.7 million with a capacity of 1.98 MW AC. The Solar Array will provide BATO
11 with the opportunity to manage its electrical consumption and will contribute to reductions in the
12 peak electrical demand. The Solar Array is designed to supplement about 1.5% of the Scope 2
13 electricity needed for the plant and will eliminate 1,400 metric tons of CO2 emissions annually.
14 BATO estimates that when operational, the Solar Array would offset its electricity costs by
15 \$20,000 per month. However, the Graniteville plant's increased demand for electricity, due to its
16 expansion, will not be fully offset by the operation of the Solar array. The Solar Array will assist
17 BATO in meeting Bridgestone's goal of reducing its global CO2 emissions 35% by 2020 and 50%
18 by 2050 by using renewable energy sources to help offset Scope 2 emissions.

19
20 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

21 **A.** Yes, it does. I would like to thank the Commission for hearing our case.